	Application No.	Applicant(s)	
Notice of Allowability	10/693,295	SCHILLER ET AL.	
	Examiner	**Art Unit**	
	Andrae S. Allison	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *April 23, 2007*.

2. ☒ The allowed claim(s) is/are *1, 4-12, 15-24 and 26-32*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

         1. ☐ Certified copies of the priority documents have been received.

         2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

         3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

     * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

     (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

         1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

     (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of
Paper No./Mail Date _____ .

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☐ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

JOSEPH MANCUSO
SUPERVISORY PATENT EXAMINER

DETAILED ACTION

Allowable Subject Matter

1.   The following is an examiner's statement of reasons for allowance: The most

pertinent prior art Luo et al (US Patent No.: 6,504,951) and Norton (US Patent No.:

5,912,994). Luo discloses a method for defining a boundary separating a first region

and a second region of a digital image the digital image including one or more color

arrangements characteristic of a first visual texture of the first region and one or more

color arrangements characteristic of a second visual texture of the second region, the

method comprising: training a learning machine to classify learning inputs sets based

upon training set, each learning machine input set including a pixel of interest and

neighboring pixels and being derived from pixels in the digital. Lou teaches determining

using the trained learning machine based on one or more of the color arrangements,

which pixels of the image satisfy criteria for classification as associated with the first

region or second region, by inputting learning machine input sets and outputting an

indication of a region which each of the pixels of interest belong. Luo further teaches

identifying pixels of the image that are determined not to satisfy the criteria for

classification as being associated either with the first region or the second region and

decontaminating the identified pixels to define the boundary between the first and

second regions by separating pixels of the digital image into pixels associated with the

first region, the second, or the boundary. However, Luo does not teach identifying pixels

and decontaminating the identified pixels to define the boundary between the first and

second regions. Norton teaches a method of masking an object including identifying pixels and decontaminating the identified pixels to define the boundary between the first and second. Moreover, neither Luo or Norton teaches selecting via a user input a training sets of pixels including a portion of the first region, a portion of the second rejoin and the boundary, the training set of pixels exhibiting sample color arrangements associated with both the first and the second and first visual texture. By selecting via a user input a training sets of pixels including a portion of the first region, a portion of the second rejoin and the boundary, the user can control the segmenting process in a homogenous color image. The examiner finds no reason or motivation to combine the above references in an obvious rejection thus placing the application in condition for allowance.

2.   Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statements of Reasons for Allowance."

Conclusion

The prior art made part of the record and not relied upon is considered pertinent to applicant's disclosure.

Kang et al (US Patent No.: 6,606,408) is cited to teach an image segmenting apparatus and method.

Murching et al (US Patent No.: 6,381,363) is cited to teach a histogram based

segmentation method.

Lee et al (US Patent No.: 6,026,182) is cited to teach feature segmentation.

Streit, Roy L (US Patent No.: 5,724,487) is cited to teach a neural network for

maximum likelihood classification.

Tan et al (NPL document titled: Selecting Objects With Freehand Sketches) is

cited to teach an interactive tool for selecting objects in simple freehand sketches.

Inquires

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Andrae S. Allison whose telephone number is (571)

270-1052. The examiner can normally be reached on Monday-Friday, 8:00 am - 5:00

pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Joseph Mancuso can be reached on (571) 272-7695. The fax phone

number for the organization where this application or proceeding is assigned is 571-

273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrae Allison

June 13, 2007

JOSEPH MANCUSO
SUPERVISORY PATENT EXAMINER